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OPTIONAL FORM 99 (7-90)

**FAX TRANSMITTAL**

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To	Steve Hill	From	Ed Pike
Dept./Agency	BAAQMD	Phone #	912-3970
Fax #	749-5030	Fax #	

NSN 7540-11-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

September 26, 2003

Mr. Steve Hill  
Air Pollution Control Officer  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

**RE: EPA Review of Three Proposed Refinery Title V/ Major Facility Review Permits:  
Chevron Products Company (Richmond),  
Valero Refining Company (Benicia) and  
Tesoro Refining and Marketing Company (Martinez)**

Dear Mr. Hill,

Thank you for the opportunity to review these proposed Bay Area Air Quality Management District ("BAAQMD" or "District") Title V Major Facility Review permits ("Title V permits"). We received these permits on August 12, 2003. We are not objecting to these permits because the District has committed to make a number of specific improvements, and has also committed to following EPA guidelines and regulations to make several applicability determinations once you obtain the necessary information. These commitments were made in the District's September 25, 2003 letter or in earlier conference calls and meetings on September 9<sup>th</sup>, 10<sup>th</sup>, and 23<sup>rd</sup>, and 24<sup>th</sup> with EPA staff. We have enclosed our comments, which note the District's commitments.

We appreciate the District's cooperation with the EPA during this process, including joint refinery tours and numerous opportunities to discuss the proposed permits and our comments. We believe that these discussions will facilitate the necessary permit corrections to the initial Title V permits. We understand that the District also intends to proposed additional permit revisions in the near future, and we will continue to work cooperatively with the District during these revisions.

We were unable to review the proposed Title V permits for Conoco-Phillips Company and Shell Martinez Refinery due to the short review period. However, we understand that the District will make revisions to these permits that are consistent with the revisions for the other three permits. EPA intends to help the District identify EPA issues that are applicable to the other two permits in the near future. EPA retains the authority to reopen any permit if we determine that changes are necessary to assure compliance with all applicable requirements and the requirements of 40 CFR part 70.

If you have any questions concerning our comments, please contact me at (415) 972-3974, or contact Ed Pike of the Permits Office at (415) 972-3970.

Sincerely,



Gerardo C. Rios

Chief, Air Permits Office

Adams, Broadwell, Joseph & Cardozo - Daniel Cardozo, et. al.

California Air Resources Board - Mike Tollstrup

Chevron Products Company - Jim Whiteside

Communities for a Better Environment - Will Rostov

Conoco-Phillips Company - Willie W. C. Chiang

Golden Gate University - Marcie Keever, et al

Shell Martinez Refinery - Aamir Farid

Tesoro Refining and Marketing Company - J. W. Haywood

Valero Refining Company - John U. Roach

**Enclosure A:**  
**EPA General Comments**  
**on Proposed Refinery Title V/ Major Facility Review Permits**

**Federal Enforceability**

We appreciate the District's commitment to mark SIP-approved regulations as federally-enforceable throughout the permit. For instance, citations to SIP Regulation 9-1 are inconsistently labeled in the permits and must be corrected to indicate that the rule is federally enforceable.<sup>1</sup> In our comments we have pointed out a few instances, but we are not able to point out each example of where a condition was marked not federally enforceable, but should have been marked "yes" instead.

COMMENT

**Flaring:**

We understand that the District intends to re-evaluate the permit conditions for flares and impose the correct applicable requirements in the permits. We believe that the revised Statement of Basis for each permit must document the reasons for each applicability determination, including but not limited to NSPS Sub-parts A (including 60.18) and J; 40 CFR part 63 subpart CC; and each of the Reg 8 Rules (Reg 8-2, Reg 8-18, Reg 8-28, etc). To document these determinations, the District must identify what sources are controlled by each flare, the basis for any NSPS or other non-applicability determination, and whether they are used for routine flaring or emergencies and upsets only.

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We appreciate the District's commitment to include the monitoring required for each flare to determine compliance with NSPS Subpart J, including fuel H<sub>2</sub>S monitors for those flares subject to the fuel H<sub>2</sub>S limit. Please also include record-keeping and reporting requirements for those flares subject to NSPS J but exempt from the fuel H<sub>2</sub>S limit. We also understand that the District will include opacity monitoring on process flares for compliance with Ringelmann/ opacity Regulations 6-301 & 302 and each of the requirements that apply on a unit-specific basis, and mark all flame monitoring as "continuous" monitoring. Where the necessary Title V monitoring coincides with the District's Regulation 12-11 flare monitoring rule, the District may list Reg 12-11 as the monitoring that will satisfy Title V if it is listed as federally enforceable. For sources that must meet a given control efficiency, the District must include a compliance determination and monitoring method for those requirements.

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For thermal oxidizers, the permit evaluations must also contain the applicable requirements. The permits must also require monitoring the flow rate if necessary to determine compliance with residence time requirements. This monitoring is in addition to the temperature

COMMENT 7

COMMENT 8

<sup>1</sup>For instance, Rule 9-1-313 and 313.2 limits SO<sub>x</sub> emissions by reducing H<sub>2</sub>S in the fuel gas and must be listed as fed/enforceable. For example, see the Tesoro Coker p.77-8 (both the District and SIP version of 313.2 are listed as not federally enforceable); FCCU p.75 (the District version of this rule is listed as not federally enforceable, and no SIP version is listed), and the SRU.

monitoring that the District already includes.

Please see some source-specific flare comments in our attachments for specific refineries.

#### **General Format Comment**

We agree with the District's intention to combine tables IV and VII at the soonest opportunity. We also suggest integrating section VI or at least including page numbers for cross-referencing and including in every initial Title V permit a table of contents (see Chevron permit) that allows the public and agency and refinery staff to find the table IV and VII requirements for a specific type of equipment in every permit. Please include refinery comments in the final District RTC and continue to include a list of permitted equipment (Table II in the permit) and provide documents on the District's Web site. We also encourage the District to include applicable requirements and monitoring for abatement devices in Table VII (see Chevron permit) or any future merged table.

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#### **MACT: CAA Section 112(j) Hammer**

We appreciate the District's commitment to include the MACT hammer in each permit. For instance, the Tesoro evaluation (p8-9) states that 112(j) applies but the units-specific conditions do not include these requirements, such as table IV for loading operations on pp. 55-63. Please identify the units that are subject to 112(j) and list in the Statement of Basis the tables or the page numbers for these requirements.

COMMENT

12

#### **MACT: 40 CFR Part 63 Subpart UUU**

We understand that a condition will be added to each permit requiring timely compliance with future effective MACT standard 40 CFR Part 63 Subpart UUU, for each unit that is subject. The rule applies if the refinery is a major source of HAPs and includes each catalytic cracking unit (CCU) that regenerates catalyst, each catalytic reforming unit that regenerates catalyst, and each sulfur recovery unit (SRU) and the tail gas treatment unit serving it. The compliance date for existing sources depends on when the refinery must meet 30 ppm for gasoline sulfur content but can not be later than 12/31/2009. In some cases, affected sources must comply within 3 years after 4/11/2002.

COMMENT

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#### **Permit Shields**

As noted in the Statements of Basis (for example Chevron p.35), the District includes both "non-applicable" requirements as well as "subsumed" requirements in the proposed permit shields. We appreciate the District's agreement to add general language that is included in Chevron Table IX.A to each permit that contains a non-applicability shield. This language states that the shield dissolves if the basis for the shield no longer applies. We agree that the first type of shield may be included as long as the equipment covered by the shield can not be operated in a way that triggers the shielded requirement.

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We understand that the District sometimes includes a permit shield from an applicable requirement that may apply if the facility switches from one operating scenario to another.

We recommend denying permit shields against conditions that the facility could readily trigger. For instance, the Valero Claus units #1 and #2 are shielded against a 300 ppm emission limit (Reg 9-1-307) that applies if they emit more than 100 lbs sulfur dioxide/day (Table IX A-2 & A-3). Since the District inventory indicates that the facility's unabated emissions would be 4,000-5,000 lbs/day, please remove the permit shield or add the 100 lbs/day limit. The District must add Reg 9-1-307 to Table IV-A1 and A2 along with adequate monitoring if the District does not specifically limit each source to 100 lbs/day.

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Another example is the NSPS permit shield proposed for the Tesoro permit. Boiler #6 apparently may have been modified to increase capacity (see detailed comments on the Tesoro permit), so please delete this permit shield for boiler #6. We also recommend that the permit explicitly state that the facility shall not modify nor reconstruct (as defined in 40 CFR part 60) any unit shielded from the NSPS.

COMMENT  
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The second "subsumed requirements" shield is allowed under EPA "White Paper 2" if the District includes permit conditions that assure compliance with the subsumed requirements and demonstrates the reason for the shield. In some cases, this comparison may be relatively straightforward (i.e. a recent gas turbine NOx BACT determination vs the NSPS NOx limit) while in other cases the relative stringency of the rules compared is not as obvious and a detailed streamlining evaluation will be necessary (such as overlapping but different inspection & maintenance programs).

For instance, the demonstration (for instance the Valero permit streamlining of an EPA NSPS & NESHAP in Table IX b-24 on p646) must show that the applicability of the permit conditions will be as broad as the rule that would be streamlined. As the table itself notes that the Bay Area rule does not cover all of the units that would be shielded from EPA requirements, the District must eliminate this proposed permit shield unless the appropriate permit conditions and demonstration are added. For this second type of shield, please cross-reference the specific permit conditions that will assure compliance with the subsumed requirement(s) and make sure that they are marked federally enforceable in the permit.

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### Public Comments

EPA has received substantial comments from the public and the refineries earlier this week that we were not able to review in the few days prior to the end of our review period. If we subsequently determine that additional permit revisions are necessary based on these comments, we will inform you through the appropriate process at that time.

### Relationship of EPA Comments to Other Bay Area Refinery Permits

We were not able to review all of the thousands of pages of the Bay Area's proposed refinery permits during our 45-day review period, nor did we have enough time to review each part of the three permits that we are commenting on. We appreciate the District's commitment to make changes in response to this letter for each of the five permits, and we will help the District identify where those changes are appropriate as much as we can. We understand that

the District will use revisions to the Tesoro permit as a model for revisions that are applicable to the other five permits, unless there are source-specific factors. If we subsequently discover any additional issues, we will inform you through the appropriate process at that time.

#### **Single vs. Multiple Source Applicability Determinations**

CARB's emission inventory database lists 16 Bay Area sources in the petroleum refining SIC code of 2911 (<http://www.arb.ca.gov/emisinv/emsmain/emsmain.htm>) and a number of other loading racks under SIC code 5171. We understand that the District will use EPA guidance to determine whether Title V permits are necessary for potential support facilities on a case-by-case basis including the hydrogen plant at the Tesoro refinery (the hydrogen plant is now owned by Air Products) and loading racks that may be support facilities.

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We have now provided you with additional guidance to explain that co-ownership is not always necessary to determine that a facility is a support facility to the primary source. "In short, where more than 50% of the output or services provided by one facility is dedicated to another facility that it supports, then a support facility is presumed to exist."<sup>2</sup> Other factors include the degree of control exerted by the primary source, the nature of contractual agreement, and whether the potential support facility would exist at its current location if not for the primary facility. We request that you evaluate whether Air Products is a support facility for the Tesoro refinery based on the factors listed in these guidance documents. We request that the District share with us the factors used for that determination. They include Tesoro's dependence on Air Products for hydrogen used in the refinery process, how much of Air Products' raw materials come from Tesoro, and how much of their production serves Tesoro. Please also inform us whether refinery loading racks have their own separate bulk storage, or rely on their host refinery to store the petroleum that they load.

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EPA Region 5 letter dated August 25, 1999 to William Baumann, Wisconsin Department of Natural Resources at <http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/oscar.pdf>. Also see EPA Region VIII letter dated November 12, 1998 to Julie Wrend, Colorado Department of Public Health and Environment at <http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/coorstri.pdf>; and EPA Region X letter to Simpson Paper Company dated November 27, 1996 at <http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/simpson.pdf>. For more examples, enter "support facility" at <http://www.epa.gov/region07/programs/artd/air/policy/search.htm>.

## EPA Comments on Proposed Tesoro Permit

4. We understand that a contractor completely re-built boiler #5, which was followed by a greater than 100 tpy Nox increase (OCE 9/17/02 comment p 34). We strongly recommend imposing any applicable requirements that were triggered by this change. } 222

### Monitoring

#### ***Boilers #5 and #6/ coking***

1. The source testing requirements for boiler #5 (page 775) need to specify that the required source testing will be performed for both liquid and solid fuels, unless coke is deleted from the permit. We understand Tesoro requested that the District delete coke as an allowable fuel, and we appreciate the District's commitment to doing so after reviewing Tesoro's request. If the District does not delete coke, additional testing must be required in the permit in case the fuel is actually used. Since boiler #6 is also permitted to burn coker gas, we believe that the permit must also contain a periodic monitoring evaluation for PM emissions when the boiler is burning it. } 223
2. As noted in our emission cap comment, CEMs are mandatory under 1-520 for boiler #5 and apparently #6 because they are rated greater than 250 bbmtu/hr and may burn non-gaseous fuels. } 224

#### ***FCCU/CO boiler #7 - Monitoring for pollutants other than PM***

1. Pages 658-959, Condition #11433 sets limits for NOx (354 tpy), SO2 (1335 tpy), CO & POC, and PM/PM10 (151.5 tpy) for FCCU/CO, boiler #7, and unit S-802/S-901 and requires use of an ESP. Please add these limits to tables IV (pages 104-106) and VII (pages 758-759). In addition, monitoring for SOx and PM10 must be added to table VII. (Condition #11433 refers to a different permit condition that does not appear to contain any monitoring or testing). } 225  
} 226

The option for "none or COM" monitoring for tube cleaning opacity should be deleted from page 758 because the source has a COM requirement in the preceding condition. } 227

#### ***PM and Opacity Monitoring for units with an Electrostatic Precipitator (ESP)***

Pages 747 and 749 state that no monitoring is required for the PM and opacity limits for the FCCU (S-802) and coker (S-806) ESPs because their emissions are negligible. However, the District emissions data indicates that unabated 2001 emissions would be several thousand tpy PM from each of the FCCU and coker boilers, and data from the fluid coker boiler manufacturer indicates that this ESP can exceed the grain loading

## EPA Comments on Proposed Tesoro Permit

limit<sup>3</sup>. Therefore, monitoring of the PM and opacity limits for the ESPs must be required and we appreciate the District's commitment to doing so.

Examples of monitoring approved by EPA in the past include (but are not necessarily limited to) parameter monitoring based on specified ranges for the voltage and current, periodic stack tests, and COMs. The proposed Chevron permit requires quarterly source testing of the FCCU and continuous monitoring of the ESP (see pages 431 and 433 of the Chevron permit).

### *PM and Opacity Monitoring for Units Without ESPs*

We appreciate the District's commitment to performing an evaluation of the periodic monitoring required for several sources without ESPs (e.g., FCCU #7, coke loading at unit #10 and handling operations [see page 744]), and to requiring periodic monitoring of those sources unless the District demonstrates that the facility could not exceed the emission rates. For instance, the engineering evaluation states that emissions are negligible because the coke is handled as a slurry; however EPA understands that the emissions from some sources such as the coke loading (unit #810) may have significant potential emissions.

### *Monitoring for IC Engines*

Pages 781-783 of the draft permit list source testing every other year for 300-880 bhp engines without describing what compliance method will be used to meet the limit (see equipment list, pages 22-23). In addition, the permit must contain adequate monitoring (such as parameter monitoring and/or use of calibrated portable analyzers) to determine emissions between tests. Also note that VOC testing may be necessary to demonstrate compliance with the emission cap for rich-burn engines 952-954. Table IV for IC engines is on pages 126-129. Identifying each as rich or lean burn engines in the table would be helpful.

The SJVUAPCD Occidental permit contains examples of quarterly self-testing for engines in the size range of 800-1000 bhp. For 300 bhp engines, the SJV policy (available at [http://www.valleyair.org/policies\\_per/Policies/SSP%201810.pdf](http://www.valleyair.org/policies_per/Policies/SSP%201810.pdf)) contains examples of appropriate monitoring.

## **COOLING TOWERS**

### **Applicable Requirements**

1. The District agreed to add Section 8-2-301 to the list of source-specific applicable

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<sup>3</sup>The ESP construction company states that the ESP is designed to handle a fluid coker output of up to 0.5 gr/ACFM (<http://www.southernenvironmental.com/casedtls.cfm?id=27>). We assume that the outlet temperature would be far less than 1500 + degrees K, and thus the ESP is intended to treat inlet loadings well above the District standard of 0.15 gr/dscf.



## EPA Comments on Proposed Tesoro Permit

requirements on page 89 of the permit

### Federal Enforceability

1. The District agreed to identify BAAQMD Regulation 6 as a federally enforceable requirement on page 89 of the permit.

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### Monitoring

1. The emissions calculations provided by the District show that under the expected operating conditions, the estimated POC emissions from the cooling towers are significantly less than the 300 ppm limit specified in Section 8-2-301. As a result, periodic monitoring is not required for these sources to demonstrate compliance with the aforementioned limit. At the same time, however, the estimated emissions are not low enough to reach the same conclusion regarding the requirements of 40 CFR 63 Subpart CC, which have an applicability threshold of 20 ppmv organic HAP. In the absence of source-specific emissions or monitoring data, the District should, at a minimum, determine which of the cooling towers are vulnerable to HAP emissions and require periodic monitoring of the identified sources to confirm that the emissions remain below the 20 ppmv threshold.

238

2. The District agreed that monitoring requirements for the cooling towers should be added to Table VII-A pursuant to parts D3, D4, D5, D6, E3, E4, E5, and E6 of Condition #19199.

239

3. The District agreed to add Sections 6-311 and 8-2-301 to the list of applicable limits and compliance monitoring requirements on page 756 of the permit.

240

### Miscellaneous

1. The circulation rate specified for source 983 in Appendix D differs from the value listed on page 24 of the SOB and both of these values differ from the one on page 23 of the draft permit. The District agreed to resolve this discrepancy by using the appropriate circulation rate.

241

2. The permit specifies two different limits for the permitted maximum operating capacity for source 975. While Condition #18435 limits the recirculation rate to 54,000 gpm (page 695), paragraph D1 of Condition #19199 establishes the limit at 69,000 gpm (page 703). The District has agreed to investigate and resolve this issue.

242

3. The District agreed that source 782 is a methanol feed storage tank and is improperly labeled as a cooling tower on page 654 of the permit.

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4. The District noted that the applicable concentration limits have not been inserted into Parts D5, D5A, E5, and E5A of Condition #19199. The appropriate limits will be included in the permit once they are established by the District.

244

## EPA Comments on Proposed Tesoro Permit

### EMISSION CAPS

#### **Applicable Requirements**

##### ***Unclear applicability***

The proposed permit contains two emission caps for five criteria pollutants on pages 599 and 631. It is not clear which cap applies or whether both apply. Please specify in the permit which equipment is subject to the cap and list any other tables that are relevant to the caps. Also please clarify whether both caps apply, or whether one cap is a modified version that superseded the prior one. Please make all cap reductions required by condition 9.11 and delete references to units that are listed under the monitoring requirements but that are no longer permitted (see page 602, S-911 and S-918).

COMMENT 20  
COMMENT 21  
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COMMENT 23

##### ***Variance Exemptions***

The permit allows the exclusion of any emissions for which a variance has been granted (page 609 (K) and 642 (K)). We appreciate the District's commitment to deleting these two paragraphs or stating that they do not affect federal enforceability of the cap. Variances may not be included in Title V permits as federally enforceable requirements, and are also prohibited from State Implementation Plans. For more information, see *Industrial Environmental Association v. Browner*, No. 97-71117 (9th Cir., May 26, 2000) and 62 FR 34641 (June 27, 1997). For instance see: FRN p80278 - middle col. 52.21 defn's 52.21(b)(48)(i)(a & b).

COMMENT 24

##### ***NSR Applicability Baselines***

The permit allows the use of the cap as a baseline for future offset applicability determinations (see pages 609(G) and 641(G)). These caps appear to have been set using a 1977-79 baseline. District SIP approved Rule 2-2-604.2 specifies the offset emission baselines<sup>4</sup> and we appreciate the District's commitment to clarifying in the statement of basis that the cap may only be used as an emissions baseline if allowed under District Rule 2-2-604.2. This clarification should also be added to the permit as soon as possible.

COMMENT 25

##### ***CO Increases***

We appreciate the District's commitment to deleting provisions allowing CO increases based on modeling (for example, see page 609-610). The appropriate requirements for approving an increase are specified in the District's SIP approved NSR rule and 40 CFR.

COMMENT 26

##### ***Offset Generation***

The proposed permit allows "equivalent permanent emission reductions" as a method of generating offsets to be used on-site without stating the other criteria necessary to generate offsets (for example, see p 634(F)). We appreciate the District's commitment to adding a statement that they must meet the criteria of the District's SIP-approved NSR

COMMENT 27

<sup>4</sup>The facility must use recent actual emissions unless the facility fully offset the cap level. This deference could be substantial - for instance the portion of the facilities' 1958 TPY of NOX attributable to the capped units, rather than 2867 Nox (cap#1) or 3182 Nox (cap#2) for a hypothetical applicability determination conducted today.

## EPA Comments on Proposed Tesoro Permit

rule to be used as credits under 634(F)

### Monitoring

#### *NOx CEMs for Cap Compliance and Compliance with other Limits*

1. The permit must explain how compliance with the cap will be determined. Cap condition #4 contains some CEMS requirements for NOx (page 602) and many sources will be required to monitor NOx and CO to meet other requirements (BAAQMD Policy Memorandum: NOx, CO, and O2 Monitoring Compliance with Regulation 9, Rule 10). The cap does not address the use of these CEMs for compliance and does not contain a method for determining emissions from other units. We appreciate the District's commitment to adding the compliance monitoring method to the permit, and we strongly recommend clarifying that CEMs data must be used for all units that are required by the District to have them. In addition, we recommend listing CEMs as federally enforceable where they are required in the permit<sup>5</sup>.  
COMMENT 28  
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2. The cap must also explain how compliance with other limits will be established. The permit contains H<sub>2</sub>S monitoring for several units and it would be helpful if the permit required the facility to convert the H<sub>2</sub>S content to equivalent SO<sub>2</sub> emissions for cap compliance purposes. The permit requires SO<sub>2</sub> monitoring or daily source testing at sulfur recovery units (pages 606-607), and Tesoro must "calculate the emission of SO<sub>2</sub> from all flares at the refinery." Therefore, it appears that H<sub>2</sub>S content monitoring of flared gases is required to assure compliance with the cap.  
COMMENT 31  
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3. Please revise the cap to state that the CEMs are required for sources such as the FCCU (S-802 page 746), coker (S-806 p.749), boiler #6 (S-904 - this unit is apparently subject to SOx CEMs on table IV due to burning coker gas), claus 3-stage sulfur recovery unit (S-1401 page 789), and the sulfuric acid manufacturing plant. Please also add CEMs or another accurate method of quantifying SO<sub>2</sub> emissions from any other units with SO<sub>2</sub> emissions from refinery feed stock (i.e., not just from combustion of refinery fuel gas that is already continuously monitored). Similarly, the permit must contain a compliance method for the PM and VOC limits, and the emission rates for units subject to the cap must be verified by compliance testing where feasible.  
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COMMENT 35  
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COMMENT 38  
COMMENT 39
4. Pages 615-616 (parts 11 and 12) allow discretion to allow "partial credit" for control at the discretion of the APCO. If the source wishes to use other data not previously approved for partial-control situations, please add source testing requirements to the permit.  
COMMENT 40

<sup>5</sup>Please re-label CEM requirement for boiler #5 on p121 as fed/enf (for furnaces on p.113; p125 also). CEMs are already mandatory under 1-520 for boilers #5 and any similar units because they are >250 bbmtu/hr and may burn non-gaseous fuels.

## EPA Comments on Proposed Tesoro Permit

### FLUID CATALYTIC CRACKING UNIT

#### **Federal Enforceability**

Citations for 1-522 and 1-522.7 (page 74, Table IV - K) should be federally enforceable because these rules are in the SIP.

COMMENT  
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### FUGITIVE SOURCES (PRESSURE RELIEF VALVES, PUMPS, COMPRESSORS)

#### **Applicable Requirements**

We appreciate the District's commitment to adding the appropriate applicable requirements to the permit for these sources.

#### **Applicable NSPS Requirements**

1. The permit includes a citation for section 60.482-2(c) (NSPS subpart VV) in permit but does not include the specific requirement. The following language should be included in the permit because it is an applicable requirement:

COMMENT  
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60.482-2(c)(1) - When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Sec. 60.482-9 (delay in repair).

2. The permit includes a citation for section 60.482-2(c) in permit but does not include the specific requirements. The following applicable requirements should be included in the permit:

- a. 60.482-9(a) - Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

COMMENT  
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- b. 60.482-9(b) - Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

COMMENT  
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- c. 60.482-9(c) - Delay of repair for valves will be allowed if: (1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Sec. 60.482-10.

COMMENT  
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- d. 60.482-9(d) - Delay of repair for pumps will be allowed if: (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

COMMENT  
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- e. 60.482-9(e) - Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly

### EPA Comments on Proposed Tesoro Permit

supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. [48 FR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

COMMENT  
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3. The permit does not address section 60.486(c)-(h) (recordkeeping and reporting requirements under 40 CFR Part 60 Subpart VV). The following applicable requirements should be included in the Title V permit:

a. 60.486(c) - When each leak is detected the following information shall be recorded in a log that is kept in a readily accessible location: (1) The instrument and operator identification numbers and the equipment identification number. (2) The date the leak was detected and the dates of each attempt to repair the leak. (3) Repair methods applied in each attempt to repair the leak. (4) "Above 10,000" if the maximum instrument reading measured by the methods specified in Sec. 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm. (5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. (7) The expected date of successful repair of the leak if a leak is not repaired within 15 days. (8) Dates of process unit shutdowns that occur while the equipment is unrepaired. (9) The date of successful repair of the leak.

COMMENT  
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b. 60.486(d) - The following information pertaining to the design requirements for closed vent systems and control devices shall be recorded and kept in a readily accessible location: (1) Detailed schematics, design specifications, and piping and instrumentation diagrams. (2) The dates and descriptions of any changes in the design specifications. (3) A description of the parameter or parameters monitored to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. (4) Periods when the closed vent systems and control devices are not operated as designed, including periods when a flare pilot light does not have a flame. (5) Dates of startups and shutdowns of the closed vent systems and control devices.

COMMENT

c. 60.482-10(e) - The following information shall be recorded in a log that is kept in a readily accessible location: (1) A list of identification numbers for equipment subject to the requirements of this subpart. (2)(i) A list of identification numbers for equipment that are designated for no detectable emissions. (ii) The designation of equipment as subject to the requirements of Sec. 60.482-2(e), Sec. 60.482-3(i), or Sec. 60.482-7(f) shall be signed by the owner or operator. (3) A list of equipment identification numbers for pressure relief devices required to comply with Sec. 60.482-4. (4)(i) The dates of each compliance test as required in Secs. 60.482-2(e), 60.482-3(i), 60.482-4, and

COMMENT

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60.482-7(f). (ii) The background level measured during each compliance test.  
 (iii) The maximum instrument reading measured at the equipment during each compliance test. (5) A list of identification numbers for equipment in vacuum service.

- d. 60.482-10(f) - The following information pertaining to all valves that are subject to the unsafe-to-monitor and difficult-to-monitor requirements under 60.482-7(g) and (h) and to all pumps subject to the unsafe-to-monitor requirements under 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: (1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump. (2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. COMMENT 51
- e. 60.482-10(g) - The following information shall be recorded for valves complying with Sec. 60.483-2: (1) A schedule of monitoring. (2) The percent of valves found leaking during each monitoring period. COMMENT 52
- f. 60.482-10(h) - The following information shall be recorded in a log that is kept in a readily accessible location: (1) Design criterion required in Secs. 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and (2) Any changes to this criterion and the reasons for the changes. COMMENT 53

- 4. 40 CFR 61 Subpart FF (61.340 - 61.359)  
 Please explain why 40 CFR part 61, subpart FF is not included as an applicable requirement. If this standard is an applicable requirement please see the Chevron comments on this subpart (applicable requirements and monitoring). COMMENT 54

### *Vessel Depressurization Rule*

We appreciate the District's commitment to requiring monitoring of the pressure for all of the pressure vessels to determine compliance with SIP Reg 8-10. COMMENT 55

## Monitoring

### *Component Monitoring*

- 1. BAAQMD Rule 8-18  
 Table VII-I (pages 862-868) indicates that no monitoring is required for several Rule 8-18 requirements. EPA recommends adding citations to Rule 8-18 leak inspection requirements or adding new monitoring requirements for them in the permit. Among these please add, COMMENT 56
  - a. 8-18-306.1: P/E record-keeping to the monitoring requirements for this rule.
  - b. 8-18-306.2: record-keeping to the monitoring requirements for this rule.
  - c. 8-18-307: inspection and record-keeping to the monitoring requirements for

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this rule.

2. CFR 40 part 60, Subpart QQQ

60.692-5(b): Table VII-I (pages 862-868) indicates that no monitoring is required for control devices used to meet the 95% control limits or for certain temperature and residence time requirements, which may be an alternate operating scenario. The permit must contain monitoring requirements and conditions for existing controls and for alternate operating standards (including notification, etc) for these controls if the facility wishes to have the option of using them to comply with the standard.

COMMENT

57

3. CFR 40 Part 60, Subpart VV and Part 61, Subpart V

Please see Chevron comments.

COMMENT  
58

4. CFR 40 Part 61, Subpart FF

Please see our comments under applicable requirements.

COMMENT  
59

### PERMIT SHIELDS

In addition to our general comments on permit shields (see enclosure A), we understand that the District will remove the flare permit shield from Table IX-B. This regulation is currently proposed based on District Regulation 10, which is not listed in the District and will be re-evaluated by the District in the future. We recommend not including permit shields in general unless the District can show that the shielded regulation (in this case Reg 8-2) is unambiguously not applicable.

COMMENT

### SULFUR TREATMENT EMISSIONS

#### **Monitoring**

##### ***Opacity and PM Requirements for sources 1401, 1404, 1405, and 1411***

We appreciate the District's commitment to adding testing for sources 1401, 1404, 1405, and 1411, for opacity and PM requirements (see Table VII A, pages 798-792).

COMMENT

61

##### ***Monitoring for 95% H<sub>2</sub>S monitoring requirement (SIP Rule 9-1-313)***

We appreciate the District's commitment to adding annual source testing process monitoring. We also recommend as monitoring to verify that the unit is operating properly.

COMMENT

62

##### ***Monitoring for SO<sub>3</sub>/H<sub>2</sub>SO<sub>4</sub> Limit (SIP Rule 6-330)***

Please provide a monitoring evaluation for any controls necessary to meet this limit (see engineering evaluation, page 31).

COMMENT

63

##### ***Future Effective Date for SO<sub>x</sub> Limit***

Please specify the compliance date and the monitoring method for the 4 lb SO<sub>x</sub>/ton sulfur limit that is effective 4 years after an ATC is issued (page 638 condition (B)(9)).

COMMENT

64

## EPA Comments on Proposed Tesoro Permit

### TANKS

#### **Applicable Requirements**

1. It appears the District made a determination that 40 CFR 60 Subparts A and Kb are not applicable to source 658 because the requirements were added to the permit and then later deleted (pages 186-188, Table AZ Cluster 01a). If this is correct, please explain why and note that condition 63.640(n) can also be deleted from the applicable requirements for this source on page 187. In addition, the monitoring requirement pursuant to 60.116b(e) can be removed from Table VII on page 798. } COMMENT 65
2. Part 1 of Condition #13725 requires that source 651 comply with the provisions of Rule 8-5, however Table IV - BE indicates that this source is exempt from the rule (see page 200). The information in the permit and the statement of basis is insufficient for EPA to determine the rule's applicability for this source and it is suggested that the District review the applicability to resolve this potential discrepancy. } COMMENT 66
3. Requirement 63.642(e) was omitted from Table IV - AZ Cluster 01a for source 658 and should be added (see page 188). } COMMENT 67

#### **Federal Enforceability**

Several federally enforceable conditions were not marked as such on pages 245 and 246 of the permit (Table IV - BQ Cluster 20); the permit should be changed accordingly. } COMMENT 68

#### **Monitoring**

##### ***External Floating Roof Tanks***

EPA and the District have reached the agreement that the compliance monitoring requirements for Tesoro's external floating roof tanks are inadequate for the following reasons and that the permit will be changed based on the comments below.

##### Not Practically Enforceable

To demonstrate compliance with the requirements of Sections 8-5-320, 321, and 322, the permit requires monitoring at a frequency of 1 or 10 year intervals depending on the age of the rim seal, however it does not specify the frequency for each point in the possible range of ages. Such an ambiguous requirement is subject to interpretation and does not establish a clear legal requirement for the permittee. } COMMENT 69

##### Inconsistent with SIP Rule 8-5

The monitoring requirements established to demonstrate compliance with Sections 8-5-320, 321, and 322 are not consistent with the requirements of the rule. The District should review the monitoring requirements for these tanks and revise them based on the comments below. The requirements for source 701 on page 810 of the draft permit serve as examples of the requirements to which these comments refer. For an example of these comments applied in other Bay Area refinery permits, refer to Table VII.F.1.5 for Cluster 11 in the Chevron draft permit.

- 1 To demonstrate compliance with the requirements of 8-5-320, the permit



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requires monitoring when a new rim seal is initially installed and then on a periodic basis at 1 or 10 year intervals depending on the age of the rim seal. However, according to Section 8-5-401.2, the tank fittings must be inspected twice per calendar year at 4 to 8 month intervals. In addition to changing the frequency in the permit to that required by the rule, the District should change the monitoring requirement citation from 320 to 401.2.

COMMENT  
70

2. To demonstrate compliance with the requirements of 8-5-321, the permit requires monitoring when a new rim seal is initially installed and then on a periodic basis at 5 or 10 year intervals depending on the age of the rim seal. Similarly for Section 8-5-322, the permit requires initial monitoring and then monitoring at 1 or 10 year intervals depending on the age of the seal. According to Section 8-5-401.1, the circumference of each primary and secondary seal must be inspected for compliance with Sections 321 and 322 twice per calendar year at 4 or 8 month intervals and upon installation of new seals or repair of the existing seals. In addition to changing the monitoring frequency required in the permit, the District should also change the citations for the monitoring requirements from 321 and 322 to 401.1.

COMMENT  
7

3. To demonstrate compliance with the requirements of Section 8-5-328.1.2, the permit requires monitoring on an unspecified frequency or on an event basis; however Section 8-5-502 establishes an annual source testing requirement. In addition to changing the required monitoring frequency, the District should add Section 8-5-502 as a monitoring requirement citation. (Also please see comment 7 for additional statements regarding this monitoring requirement.)

COMMENT  
72

4. The inspection requirements for pressure vacuum valves were omitted from the permit. Pursuant to Section 8-5-403, tanks subject to the requirements of Section 8-5-303 must be inspected for compliance twice per calendar year at 4 to 8 month intervals.

COMMENT  
73

### *Internal Floating Roof Tanks*

EPA identified issues with the monitoring requirements for the internal floating roof tanks similar to the ones identified for the external floating roof tanks. The District has agreed to replace the requirements intended to demonstrate compliance with Sections 8-5-320, 8-5-321, and 8-5-322 with the requirements specified in Section 8-5-402. Please note that comments 1c and 1d also apply to the internal floating roof tanks.

COMMENT  
74

### *NSPS Subpart Kb*

For sources subject to NSPS Subpart Kb, the frequency specified for inspections of the secondary rim seal is not consistent with the regulations. The permits require inspections for holes or tears of the secondary rim seal at a frequency of once every ten years; however, pursuant to 60.113b(a)(2), the secondary seal should be inspected for holes, tears, or detachment on an annual basis.

COMMENT  
75

## EPA Comments on Proposed Tesoro Permit

### *Daily Throughput Records for Source 795*

Part 4 of Condition #5711 requires that records of the daily throughput and contents of source 795 be kept to demonstrate compliance with the other parts of the condition. This compliance monitoring requirement should be added to Table VII - Cluster 05 on page 808.

COMMENT  
76

### *Annual Source Testing for Rule 8-5-502*

Rule 8-5-502 requires annual testing of the emission control device used to comply with the requirements of subsection 8-5-328.1.2. However, in many instances the permit only lists monitoring on an event basis (ex. see Table VII - cluster 05 on page 808). The District indicated that monitoring on an event basis is called for. However the annual requirement was omitted and agreed to update the permit accordingly.

COMMENT  
77

### *Monitoring for Sources Exempt from Rule 8-5*

Several tanks and tank clusters are exempt from the requirements of Regulation 8-5. However, no monitoring is required for them pursuant to that rule. For the tanks that claim exemption based on low vapor pressure, the permit should require monitoring whenever the tank contents are changed. For examples of tanks exempt from Reg. 8-5 without monitoring, refer to the monitoring requirements for Cluster 01a (pp 797-799) and Cluster 01b (pp 800-805). From the permit, the basis for the exemption is unclear; in all such cases, the District should review the basis and apply the monitoring requirement where appropriate.

COMMENT  
78

COMMENT  
79

### *Unspecified Monitoring Frequency*

The frequency specified for many tank monitoring requirements in all of the permits is "not specified." In cases where the monitoring frequencies are not specified in the applicable requirements, the District should establish appropriate ones.

COMMENT  
80

### *Monitoring per Condition #8535*

The applicable limits and monitoring requirements for condition #8535 were omitted from Table VII - A for source 1404 on page 791.

COMMENT  
81

### *Monitoring for Tank 323*

Please ensure that monitoring for the 98% limit on tank 323 (page 674) is included in the permit.

COMMENT  
82

### **Miscellaneous**

1. Section VII of the permit frequently lists monitoring requirements for tank cleaning control device standards and then refers to 328.2 as the emission limit citation. In all such instances, 328.2 should be changed to 328.1.2.
2. Tank A-846 was mislabeled as S658 on page 188 of the permit; it should be labeled as S656.
3. The District's latest revision to Rule 6-301 is in the SIP. Therefore, the duplicative

COMMENT  
83

COMMENT  
84

## EPA Comments on Proposed Tesoro Permit

- reference to SIP 6-301 and its associated limit can be removed from Table VII A for sources 1413 and 1414 on page 795 as long as the permit contains the current SIP version. ] COMMENT 85
4. Source 990 was omitted from Table VII - Cluster 01b on page 800 of the permit (should be listed in the same table as S1). ] COMMENT 86
5. Rule 8-5-311 has been deleted from the District's rules and the SIP. Please remove this citation and add a citation to 8-5-306 on p.808 and check that it is included for other units subject to this rule. ] COMMENT 87
6. The rule citation for the "Records" requirement for source 1413 on page 166 should be changed from 12-10-510 to 12-10-501. ] COMMENT 88
- Several of the tables in Section IV duplicate the requirements for 63.642(e) and 63.654(i) (see Table IV - BJ Cluster 02 on page 213 for an example). Where appropriate, the tables should be revised by deleting the duplicated conditions.. ] COMMENT 89
8. We understand that the District will add the basis for exempt tanks Tesoro pp 37-40 to the permits and we agree with this revision. ] COMMENT

## WASTEWATER TREATMENT

### Applicable Requirements

- The Title V permit does not include the requirements that are required under section 60.692-2 of 40 CFR Part 60 Subpart QQQ, which applies to individual drain systems, junction boxes and sewer lines. These conditions must be included in the permit. ] COMMENT 91
- Please clarify in the Title V permit whether section 8-8-112 applies. Per 8-8-112, the requirements of 8-8-301, 302, 306, and 308 do not apply to the separator if the influent wastewater is less than 20°C (60°F) and/or the wastewater is comprised of less than 10 ppm volume of critical organic compounds provided 8-8-502 is met. The permit includes 8-8-112 as well as other requirements that may not apply according to 8-8-112. We understand the District will clarify whether 8-8-112 applies and will remove any conflicting requirements. ] COMMENT 92
- The requirements of section 8-8-303 are not addressed in the Title V permit. We understand the District will include the requirements under 8-8-303 in the Title V permit. ] COMMENT 93
- Please verify whether the facility has slop oil vessels. If so, rules 8-8-305, 8-8-305.1 and 8-8-305.2 apply. Also note that 40 CFR Part 60, Subpart QQQ 60.692(d)-(e) applies to slop oil vessels. ] COMMENT 94

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Please verify whether sludge dewatering occurs at the facility. If so, rule 8-8-304 may apply.

COMMENT  
95

Please verify whether the wastewater treatment system falls under Group 1 or Group 2 for refinery MACT standards (40 CFR Part 63 Subpart CC). This must be clear in the permit to determine what requirements apply to the wastewater treatment system. We understand the District will clarify whether the wastewater treatment system falls under Group 1 or Group 2 for the purposes of 40 CFR Part 63 Subpart CC.

96

Please verify whether the wastewater treatment system falls under Group 1 or Group 2 for 40 CFR Part 63 Subpart FF (Subpart CC for WWTPs at refineries require refinery to comply with 61.340-61.355 standards under NESHAP part 61 subpart FF and 63.647 under part CC for group 1 sources). This must be clear in the permit to determine what requirements apply to the wastewater treatment system. We understand the District will clarify whether the wastewater treatment system falls under Group 1 or Group 2 for the purposes of 40 CFR Part 63 Subpart FF.

97

The permit must specify the recordkeeping and reporting requirements under section 63.647(c) (40 CFR Part 63 Subpart CC) that apply to the facility. The current permit does not. The following language should be included in the permit:

63.647(c) - If the owner or operator is required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters, the owner or operator shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

98

The permit contains a citation for 60.692-5 (NSPS subpart QQQ for refinery wastewater systems) which is for closed vent systems and control devices. The permit contains insufficient information to determine if a control device required. If one is required, please verify whether CAM applies to it. If so, CAM must be addressed in the permit. As the result of a recent conference call, we understand the District will clarify whether CAM applies.

99

### Monitoring

1. The permit contains a citation for 60.692-5 (NSPS subpart QQQ for refinery wastewater systems) which is for closed vent systems and control devices. Is a control device required? Please include all necessary monitoring for any control device that is used.

100

## EPA Comments on Proposed Tesoro Permit

2. We understand that Unit #606 and #607 wastewater air strippers A and B can no longer use the carbon controls listed in Table VII and the engineering evaluation. If emissions inventory estimates for 2001 are correct significant then particulate emissions of 328 tpy and benzene emissions of 60 tpy for each unit are reduced by at least 90% to comply with SIP rule 8-47-302 (Furnace S-950 may also be used as a control device). Please delete the carbon controls and add periodic monitoring for the emission controls that are used to meet the 20 ppm POC limit in section VI and the 90 % control efficiency. In addition, please provide us with the applicability determination used to delete the benzene NESHAP and MACT from Table IV and Table VII. (10)